

Screwworm Fact Sheet

October 2007

Introduction

Screwworms are fly larvae (maggots) that feed on living flesh. These parasites can infect any warm-blooded animal. Screwworms enter wounds as small as an insect bite and feed on living tissue in the area. If untreated, screwworm infestations can be fatal. In the US, screwworm is a Foreign Animal Disease reportable within 24 hours of diagnosis.



Geographic Distribution

New World screwworm, *Cochliomyia hominivorax*, is found only in the western hemisphere, primarily in the tropical areas of South America and some of the Caribbean Islands. Old World screwworm, *Chrysomya bezziana*, can be found in Southeast Asia, Kuwait, the Indian subcontinent, Main island of Papua New Guinea, Africa, Oman, and Fujaira.

Disease Life Cycle

Screwworm infestation begins when a female fly lays eggs on a superficial wound of livestock and other mammals. Unlike typical maggots that feed on dead flesh, the screwworm feeds on living tissue. One female can deposit up to 400 eggs at one time, and as many as 2,800 eggs during a 31-day lifespan. Eggs hatch into larvae that burrow into the wound or flesh to feed on the living tissue. After 5-7 days of feeding, the larvae drop to the ground and burrow in the soil where they pupate. The adult screwworm fly emerges to feed on wound fluids and mates after 3-5 days.

Transmission

An adult screwworm fly can travel up to 125 miles before laying eggs in a wound. The screwworm can also be transported by animals and people from areas in Central and South America where screwworm is found.

Screwworm Infestation

Female screwworm flies are attracted to animals with wounds. Screwworms can infest a wide variety of wounds to include:

- ☐ Tick bites
- ☐ Castration
- ☐ Dehorning
- ☐ Branding
- ☐ Shearing
- ☐ Sore mouth in sheep
- ☐ Navels of newborn mammals

It may be difficult to visualize the screwworm maggots at the wound surface, since only the breathing tubes of the maggot are exposed. As the larvae feed on live tissue, they burrow deeper into the tissue creating a deeper and wider wound. This deep burrowing is a distinctive feature of screwworms; all other maggots are surface feeders on dead tissue.

Clinical Signs

Animals infested with screwworms may show wounds with foul-smelling odor and weight loss. Animals may die from secondary infection or toxicity in 7-14 days if the infestation is not treated.

Control

Animal owners should remain vigilant and report any unusual looking wounds or maggots on livestock or pets to their local veterinarian. The veterinarian will examine, collect and send a sample of suspicious larvae to the laboratory for identification. If screwworm is diagnosed and confirmed, animal health officials will quarantine the animal. Daily wound care, larvicidal, and treatment with an insecticide are necessary to completely control the screwworm larvae.

The United States Department of Agriculture will investigate cases and determine if additional control measures, such as insecticidal treatment of the environment and sterile fly release, are warranted.

CDFA Animal Health Branch Offices	
Sacramento (HQ)	916-654-1447
Modesto	209-491-9350
Ontario	909-947-4462
Redding	530-225-2140
Tulare	559-685-3500
USDA/APHIS/VS 916-854-3900 or 877-741-3690	